MoistureShield™
COMPOSITE DECKING

INSTALLATION, CARE & MAINTENANCE INSTRUCTIONS

866.729.2378 | MOISTURESHIELD.COM

limited lifetime warranty

Welcome To The Even Greater Outdoors.

Congratulations on choosing MoistureShield for your outdoor living experience.

Take comfort in knowing that you selected an exceptional decking material built solidly on these key standards: performance, innovation and beauty. As a result of our continued technological advances like our total encapsulation process, MoistureShield® is the only decking product that can be installed on or in the ground or even underwater. Enjoy the beauty and durability for years to come.

Installation Instructions

Easy step-by-step instructions for decking, railing and stairs.

As with any building project, use proper eye and ear protection and follow local building codes. MoistureShield composite decking is for decking and accessories only. It is not to be used as structural material.

Warranty

MoistureShield Composite Decking is manufactured by Advanced Environmental Recycling Technologies, Inc. (A.E.R.T.), which warrants MoistureShield products against rot, decay and insect damage with a limited warranty from 20 years to a lifetime, depending on the product. For complete warranty details, please visit our website or call Customer Service.

General Cleaning & Maintenance Instructions

In an outdoor environment, periodic cleaning will help keep your deck looking new. As with any flooring surface, periodic cleaning is recommended. The following are suggested cleaners for occasional maintenance:

- Olympic® Premium Deck Cleaner
- Behr® 63 Deck Wash
- Jomax® Deck Cleaner
- Concrobium XT Eco-Wash™ (non-bleach)

For specific cleaning issues, please visit our website www.moistureshield.com or call Customer Service at 866.729.2378.

Decking Systems

1" × 5" Essential
ACTUAL DIMENSIONS:
1.0" × 5.0"
LENGTH: 12, 16 and 20 feet

1" × 6" Vantage
ACTUAL DIMENSIONS:
1.0" × 5.5"
LENGTH: 12, 16 and 20 feet

1" x 6" PRO
ACTUAL DIMENSIONS:
1.0" × 5.5"
LENGTH: 12, 16 and 20 feet

2" × 4" Board
ACTUAL DIMENSIONS:
1.5" × 3.5"
LENGTH: 12 and 16 feet

2" × 6" Board
ACTUAL DIMENSIONS:
1.5" × 5.5"
LENGTH: 12 and 16 feet

Trim Board
ACTUAL DIMENSIONS:
0.65" × 11.25"
LENGTH: 12 feet

Railing Systems

Our railing systems and accessories are designed to naturally complement your MoistureShield® deck or porch.

4" × 4" Post
ACTUAL DIMENSIONS:
4.265" × 4.265"
LENGTH: 51 inches

Post Collar
ACTUAL DIMENSIONS:
5.5" × 5.5"
FITS: 4" x 4" Post

Post Cap
ACTUAL DIMENSIONS:
5.5" × 5.5"
FITS: 4" x 4" Post

Baluster
ACTUAL DIMENSIONS:
1.5" × 1.265"
LENGTH: 38 inches
and 12 feet

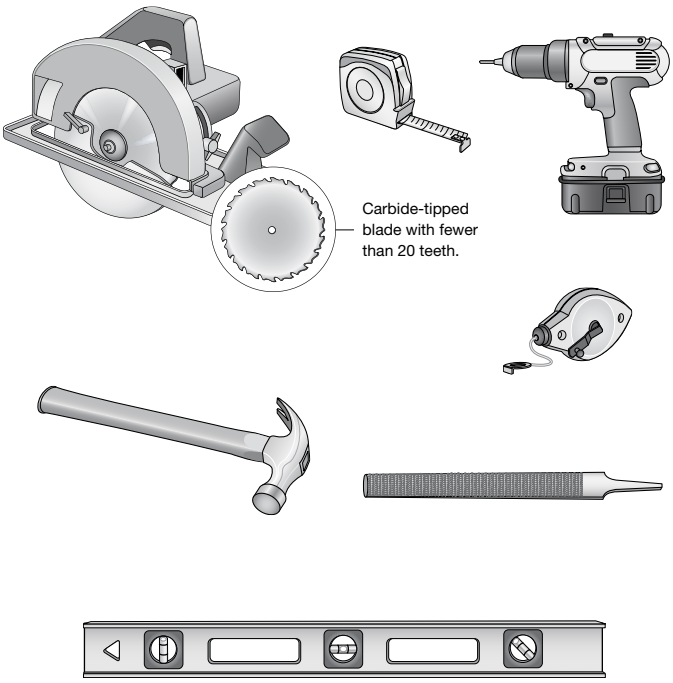
Magnum Railing
ACTUAL DIMENSIONS:
2.92" × 3.95"
LENGTH: 6 feet
FITS: 4" x 4" Post

To view our railing systems on completed decks, please visit the photo gallery at www.moistureshield.com.

Installation

Tools

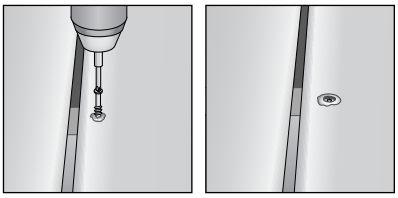
All you'll need is a hammer and screw gun, circular saw (carbide-tipped blade with fewer than 20 teeth is recommended), level, tape measure, rasp and blue chalk line. Manufacturer recommends blue chalk since other colored chalk may stain the deck.



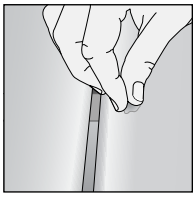
Fasteners

Each post requires two, 1/2-inch, carriage bolts 8-inches minimum length with 1-1/4-inch flat washer on back with nut. For deck board fasteners, we recommend #7, 2-1/4-inch stainless steel trim head screws for the decking and railing. If you do not want the screw heads to show on the deck boards use the following technique:

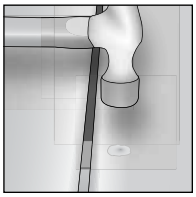
Using a #7, 2-1/4-inch stainless steel trim head screw, countersink the screw into the decking material approximately 1/4 of an inch.



Using your thumb, lightly push the displaced decking material over the hole left by the trim head screw.



Tap with a hammer, this will cover the trim head screw with decking material.



*INSTALLATION TIPS:

- Using a 2-inch driver bit allows you to better gauge screw depth.
- Tap hole with edge of hammer for best results.

Hidden Fasteners

Our products are compatible with most hidden fastener systems. Please consult the installation instructions provided by the hidden fastener manufacturer, or contact our Customer Service department at **866-729-2378.**

For your convenience, some common building code requirements are reprinted here:

- Residential minimum handrail height is generally 36-inches.
- Multi-family minimum handrail height is sometimes 42-inches.
- Baluster maximum spacing is generally 4-inches (clear distance between balusters**).
- Maximum gap between bottom rail and deck surface is generally 4-inches.** Some codes require a 2-inch maximum gap for multi-family applications.

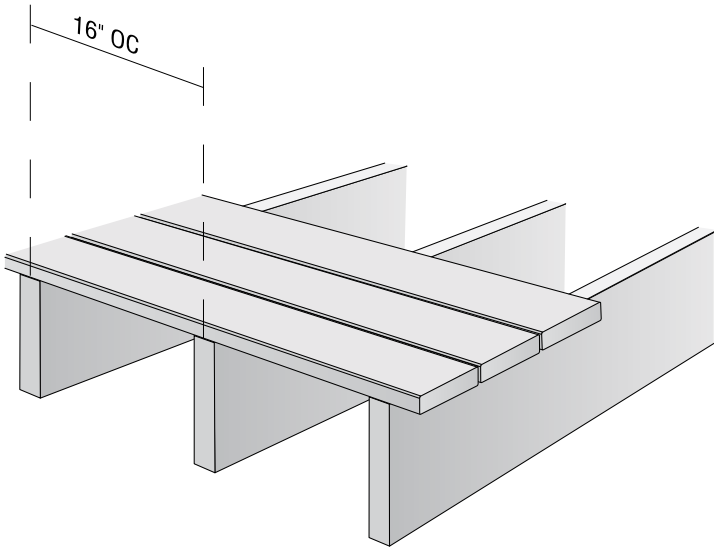
*For additional cleaning tips contact Customer Service at **866.729.2378** or visit **www.moistureshield.com**.

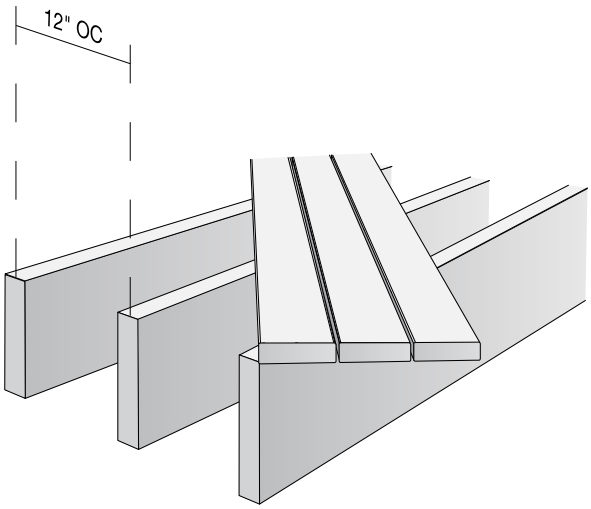
** Spacing note: The precise language is generally "do not allow passage of a sphere 4-inch in diameter". Be sure to check on the tolerance requirements of your local building code.

Post & Decking Installation

1.

Layout and install joists at either 16-inch on-center (OC) when decking will be installed perpendicular to the joists, or 12-inch (OC) when deck boards will be installed diagonally or at an angle to the joists. Joists must be level.

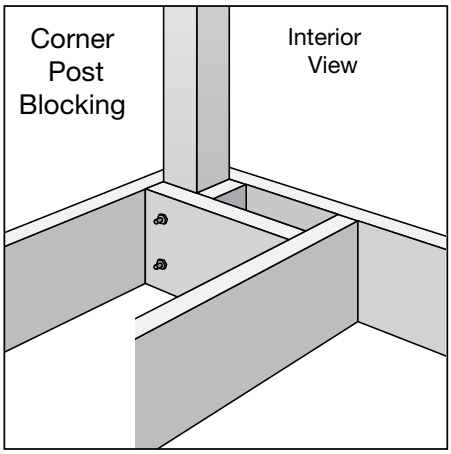


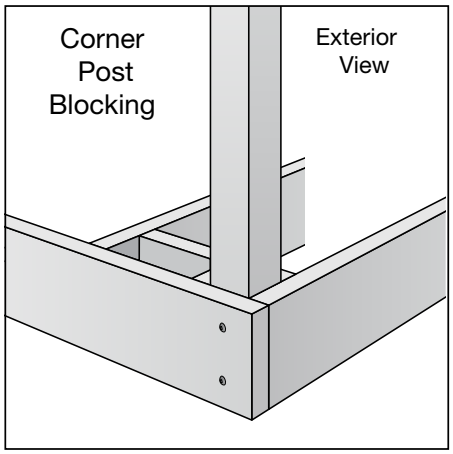


2.

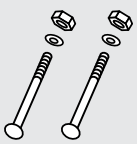
Attach posts to decking frame. DO NOT NOTCH POSTS. The maximum distance from center of post to center of post is 72-inches. Square and level posts.

A. Block posts and attach to rim joists with two bolts (1/2-inch carriage bolts 8-inch - minimum length with 1-1/4-inch flat washer and nut on back).





Bolt positions: The top bolt to be no more than 3-inches below the finished deck surface and the bolt spacing to be no less than 4-inches on-center.

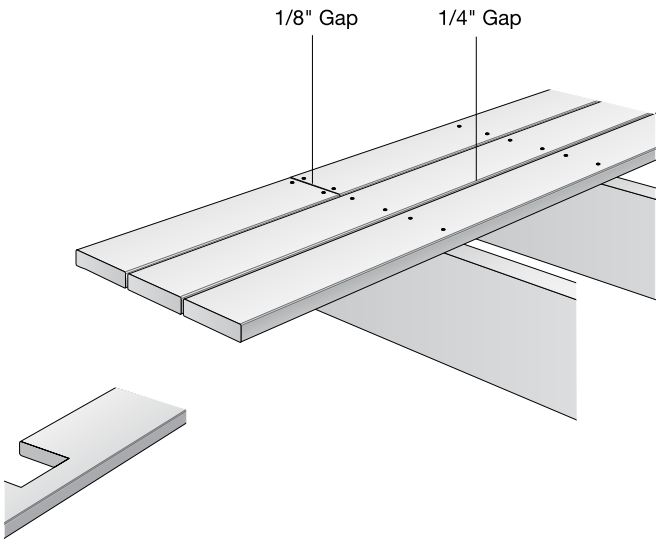


3.

Install MoistureShield® decking using 2-1/4-inch, #7 stainless steel trim head screws, two screws per board per joist recommended. Screws should be a minimum of 1/2-inch from the board end.

A. Allow 1/4-inch side-to-side spacing between deck boards. Allow 1/8-inch (or greater) end-to-end spacing between ends of boards (butt joints). If installing in freezing weather, leave 1/4-inch (butt joints).

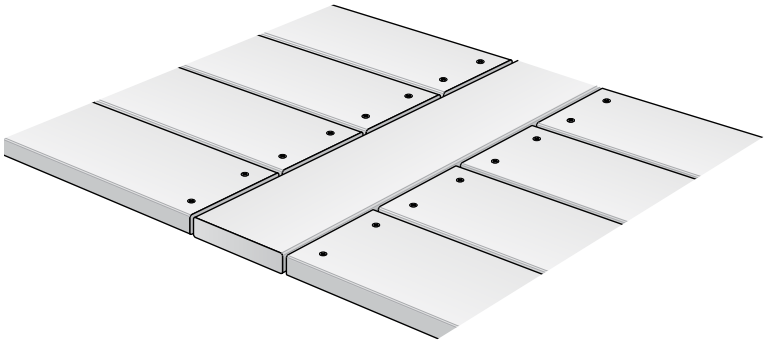
B. Cut deck boards to fit around post. Leave 1/8-inch gap between board and post.



*INSTALLATION TIPS:

- Double joist at butt joint to ensure plenty of room for fasteners.
- Pre-drill using a 7/64-inch bit when too close to the edge to prevent splitting. Drive screw at a slight angle into joist.

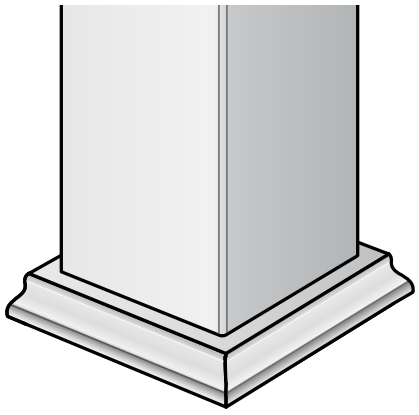
C. Staggering the butt joints on long decks usually improves the overall appearance of the finished deck. Some people also prefer a distinctive pattern for the deck boards. To achieve an interesting design, install a pattern board, which eliminates butt joints.



D. Once the boards are in place, adjust the blade depth of your saw to match the thickness of your deck boards. Use a blue chalk line to mark your cut and go. To avoid staining the deck boards, use blue carpenter's chalk. Rasp the edges to finish.

4.

Slip post collar over post onto deck if installing.



*INSTALLATION TIPS:

- Router or rasp end of deck board using 1/4-inch round for a finished look.
- Allow 3/16-inch overhang for any rim joist imperfections (straight).
- If you choose not to use the trim board, maximum recommended overhang is 1-1/2-inches.

Railing Installation

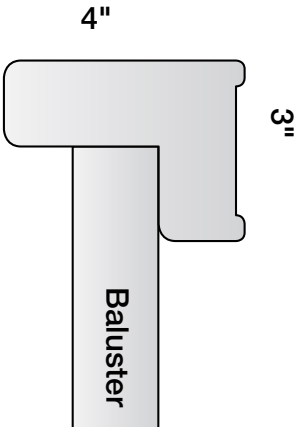
Railing Orientation - Magnum Railing: To use the magnum railing, the top magnum rail must be installed with the long leg (4-inch) in the horizontal orientation. The balusters sit on the ledge of the bottom leg of the bottom magnum rail and are covered by the top magnum rail leg. The top and bottom magnum rails allow the balusters to face either toward or away from the deck depending on which way the consumer prefers the rail system to be installed.

For ease of installation, your railing kit comes with the following pieces:

- **2** 6-foot magnum railings (one top and one bottom rail)
- **14** balusters
- **1** post

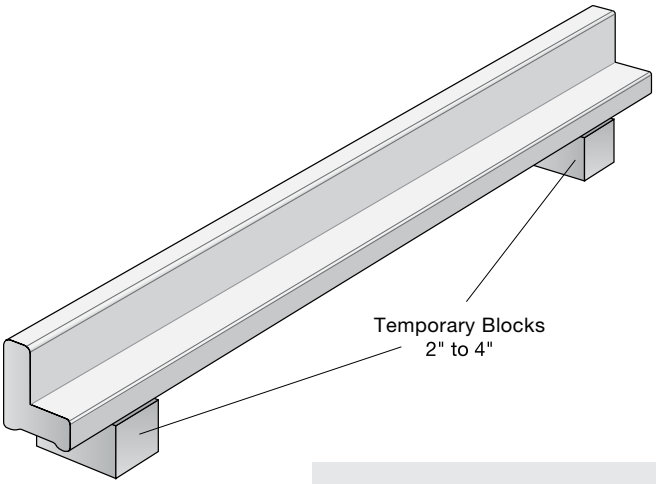
5.

Cut two temporary blocks from scrap material to the height you want the toe sweep (no less than 2-inches nor greater than 4-inches). Place on inside of posts sitting on decking.



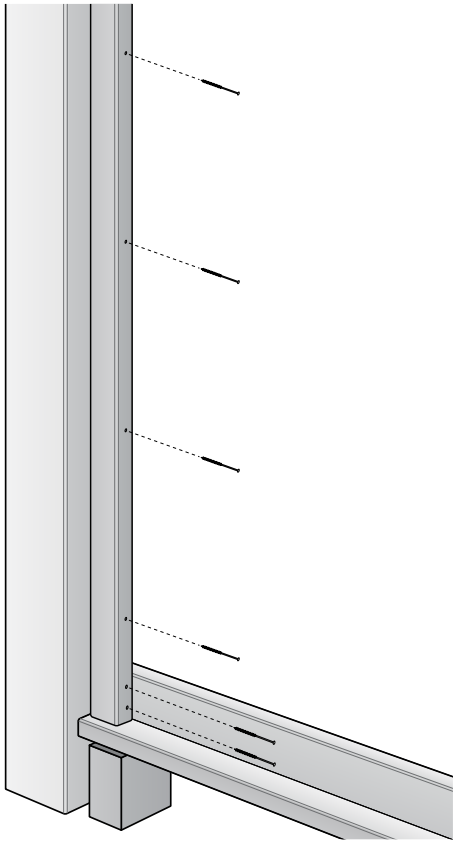
A. Set bottom magnum rail on blocks (with the 4-inch leg resting on the blocks) and center on post.

B. Place baluster against post and sit it on the bottom magnum rail (1-1/4-inch side against the post).



*INSTALLATION TIP:

· Use clamps to secure for easier installation.

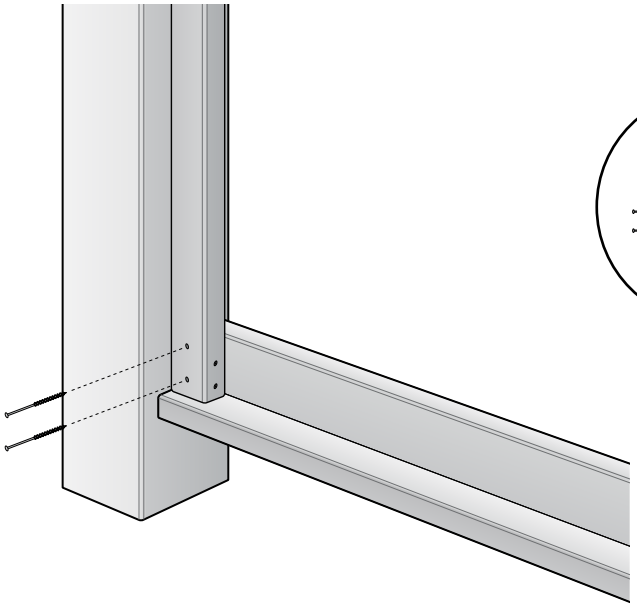


C. Using 2-1/4-inch, #7 stainless steel trim head screws, secure baluster to post, two screws at each end, and four additional screws evenly spaced between the end connections.

D. Place second baluster against opposite post and repeat step **C.**

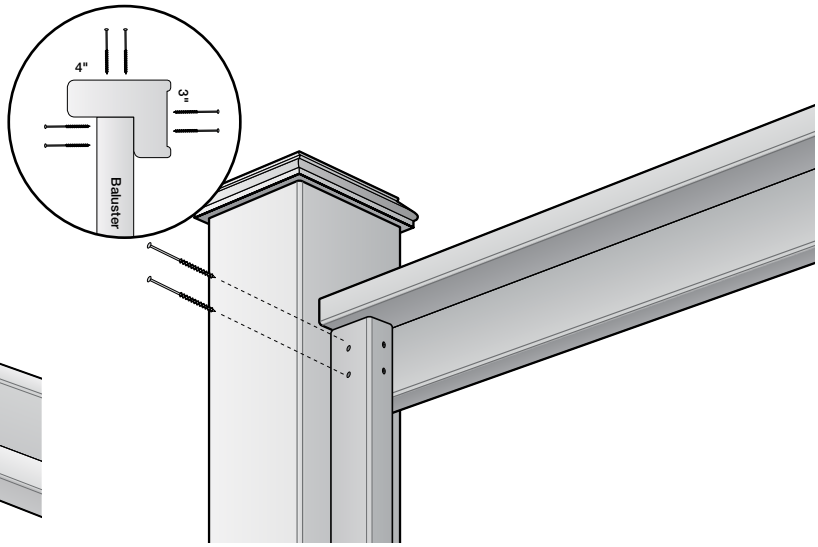
6.

Secure bottom magnum rail to each post baluster using two, 2-1/4-inch, #7 stainless steel trim head screws, repeat on other end of bottom magnum rail.



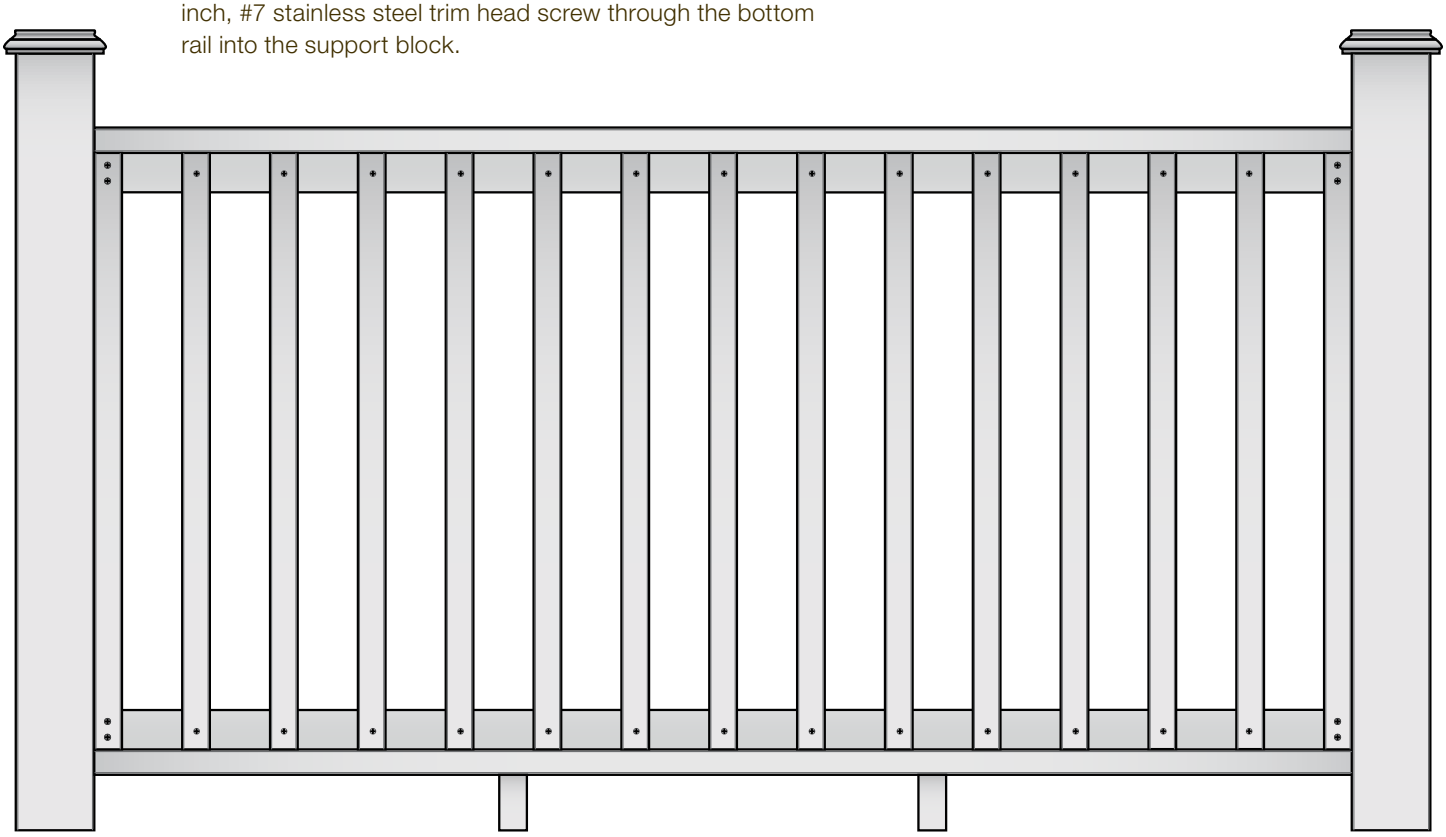
7.

Place top magnum rail on balusters (see railing orientation for details) and repeat fastening as in step 6. In addition, angle (toe nail) two 2-1/4-inch , #7 stainless steel trim head screws from top magnum rail directly into each post. Countersink the screws no more than ¼ inch. To avoid potential splitting, drill a lead hold with a 7/64 drill bit at a 45-degree angle, one-inch away from the end of the magnum rail.



8.

Place a support block every two feet between bottom rail and decking for support. Secure support block with one, 2-1/4-inch, #7 stainless steel trim head screw through the bottom rail into the support block.



9.

Use the formula below to determine the amount of balusters you need and the spacing between them. Measure the distance in inches between the inside of one post baluster to the inside of the other post baluster. This is your total space.

A. Divide the total space by 5, and round it off to a whole number. This is the number of additional balusters you need.

B. Multiply the value in (A) by 1.5 and subtract it from your total space.

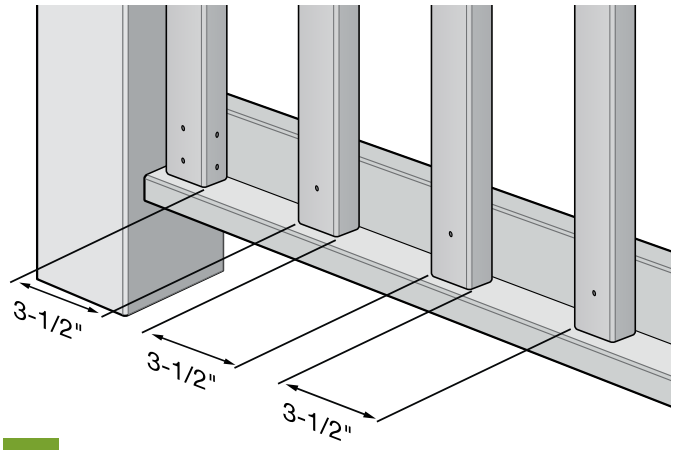
C. Divide the value in (B) by the value of (A+1). This is the spacing between the balusters. You may want to cut two spacer blocks from scrap material or a baluster, the same width as answer C, and use these two spacers at top and bottom to place each baluster.

10.

Attach baluster to top and bottom magnum rails using one, 2-1/4-inch, #7 stainless steel trim head screws. (4-inch maximum distance between balusters, visible opening – check local building code).

*INSTALLATION TIP:

· 3-1/2-inches between balusters is always a good starting point.

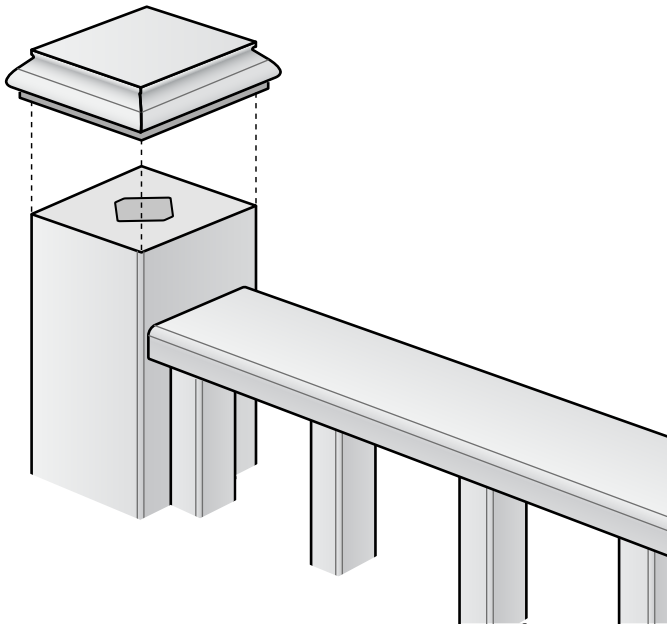


11.

Attach post caps to top of post.

*INSTALLATION TIP:

· Quality outdoor adhesive can be used for caps.

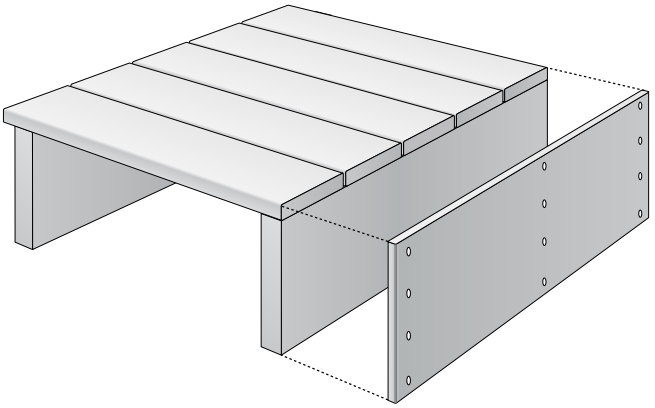


12.

Additionally, for a finished look, install trim boards over the rim joists. Position flush with the top of the decking.

A. Attach using 2-1/4-inch, #7 stainless steel trim head screws. One screw through the end or side of the decking, and three screws into the rim joist vertically. Repeat this step every 10-12 inches horizontally through the length of the trim board.

B. We recommend putting the screw through the thickest part of the deck board (center between the top and bottom of the board) when attaching the trim board, then the other three into the rim joist.

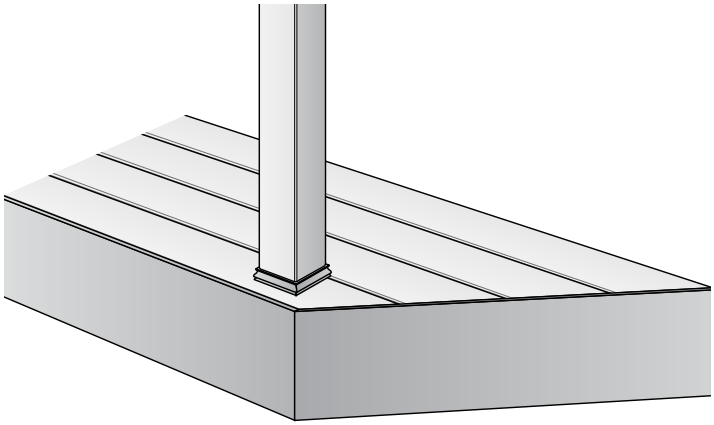


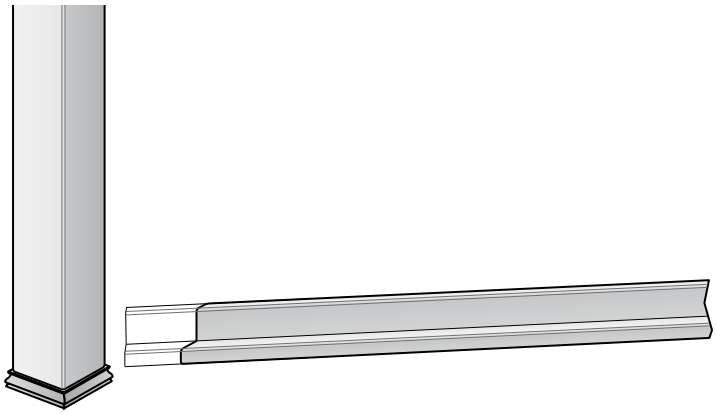
*Trim can also be installed underneath boards when the boards overlap the joist.

45-Degree Railing

13.

Attach posts to decking frame. Square to straight side of rim joist and level. Follow procedures 2-4 to install posts and decking.





14.

Determine the angle of the top magnum rail.

A. Lay a top magnum rail centered on top of the two posts and mark angle (see railing orientation) and cut.

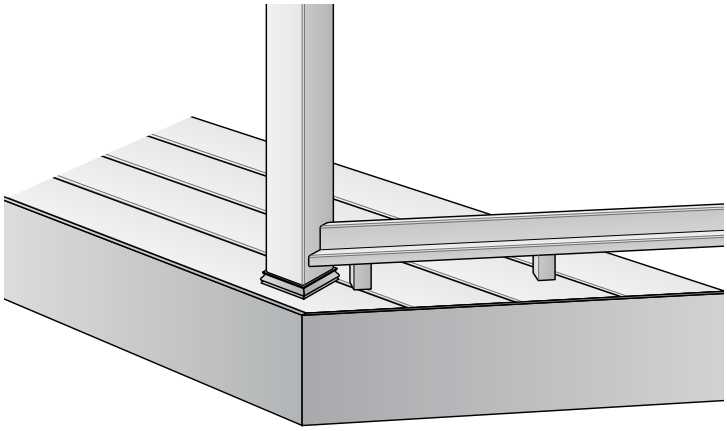
B. Mark and cut the bottom magnum rail the same way, making sure to lay the 4-inch leg on the posts.

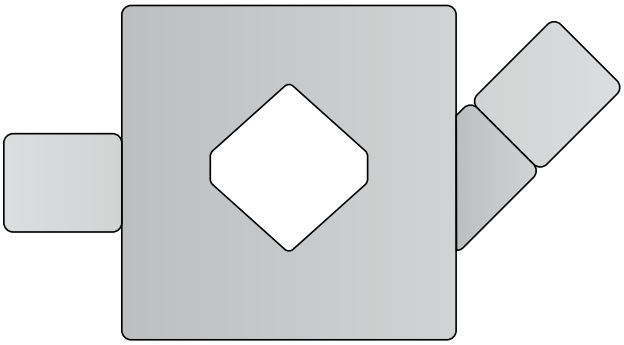
15.

A. Place bottom magnum rail on blocks that are cut to the toe sweep height desired (no less than 2-inches nor greater than 4-inches) – 4-inch leg lying on blocks.

B. Place baluster with 45-degree cut side against the post positioned at the 45-degree corner and sit on the bottom magnum rail. Attach it to the post using procedure #5C.

C. Place a regular baluster against the diagonal baluster, sitting on bottom magnum rail and attach with three, 2-1/4-inch, #7 stainless steel trim head screws, evenly spaced top to bottom.





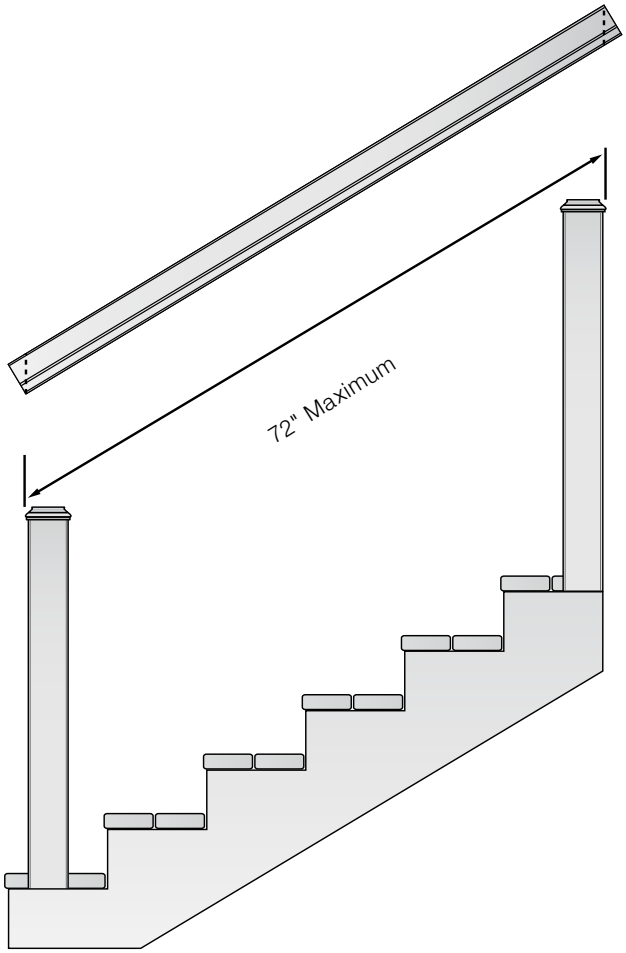
16.

Finish with steps #5D through #11 – with the exception of the post baluster that has been installed already in this 45-degree section (step #14).

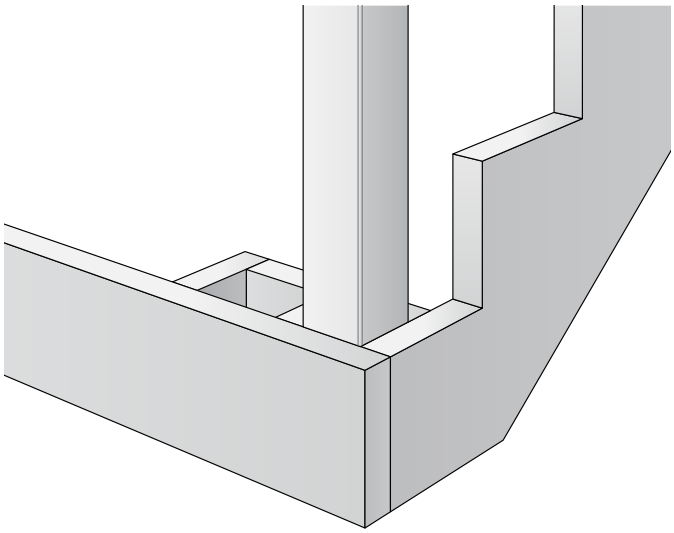
Stair Railing

17.

Attach posts to stair stringers (stringers should be placed 12-inch OC or less). Square posts to stringers and level. Be sure posts measure no more than 72-inches from outside to outside at the angle of the stairway when using as a stair rail. Guard rail sections are sold in 72-inch lengths and must be trimmed to fit between the posts. Allow for decrease in length from angle cuts.



A. Follow step #2 to install posts to stair stringers (use corner post blocking method).



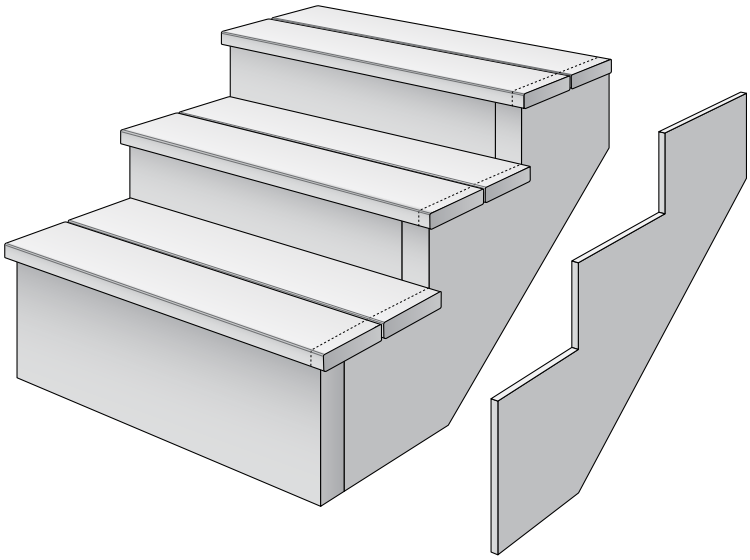
18.

Install deck boards. Boards may be flush with riser or extend past the riser by 1-inch. Use two, 2-1/4-inch, #7 stainless steel trim head screws per board per stringer.

A. Optional: Cut and install 'kick boards' (deck boards) along each stair rise.

B. Install post collars if desired.

C. Cut and install trim board on stringers if desired. Use procedures in step #12.



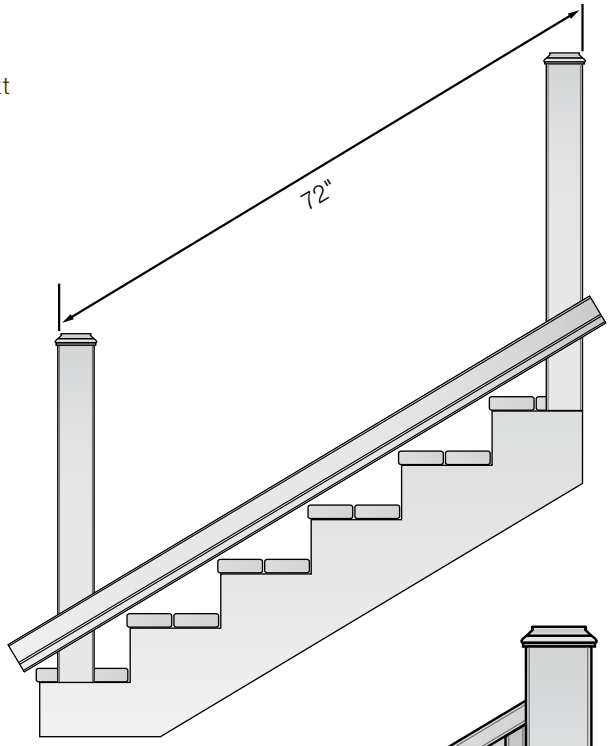
19.

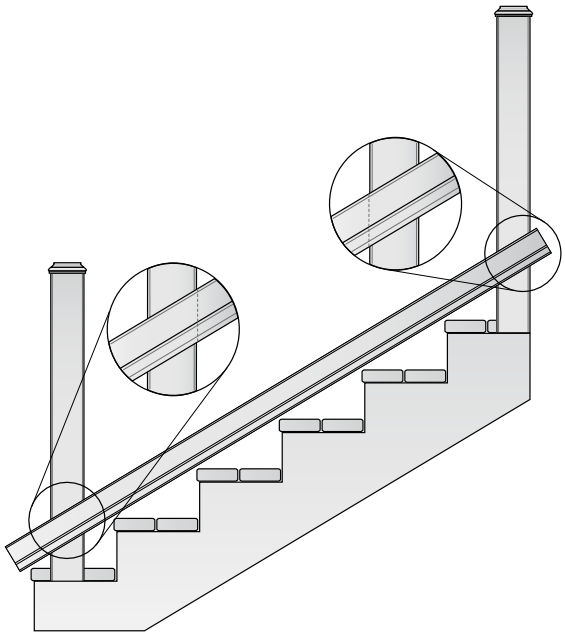
Lay a top and bottom magnum rail along the edges of the steps and up next to the post.

A. Position both rails for marking with the 2-5/8-inch leg lying on the steps.

B. Mark the rails on the inside faces of the two upright posts.

C. Cut each rail along this mark (line).



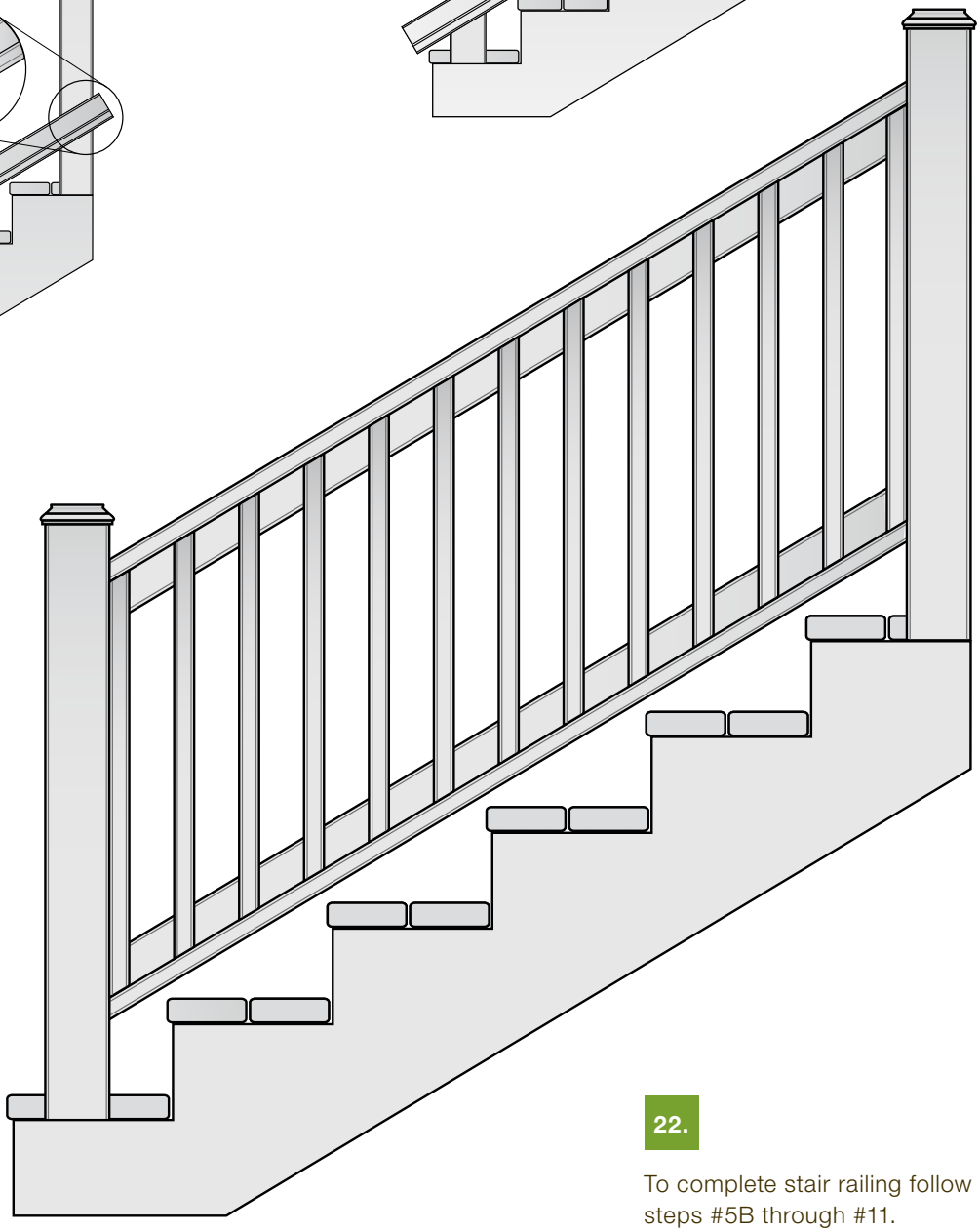


20.

Position bottom magnum rail 1/2-inch above edges of steps (check local code) support on blocks cut from scrap material.

21.

Cut ends of two balusters at the same angle as the top and bottom magnum rails and use them as the post balusters.



22.

To complete stair railing follow steps #5B through #11.

MoistureShield™
COMPOSITE DECKING

Contact Customer Service at 866.729.2378 for more information or visit www.moistureshield.com

MoistureShield™
COMPOSITE DECKING

Your Authorized Dealer:

www.moistureshield.com
866.729.2378

These railing system components are to be installed with strict accordance with the procedures described in these MoistureShield Installation instructions.

Testing these railing systems has shown that they meet the requirements of the major model building codes in the U.S.

Colors shown are as close to actual as printing reproduction will allow. MoistureShield professional grade decking and MoistureShield railing systems and accessories are manufactured by Advanced Environmental Recycling Technologies and covered under ESR-2388.

It's always better when you work with nature. Remember to recycle.

FSC

© 2014 Advanced Environmental Recycling Technologies, Inc. All trademarks are property of Advanced Environmental Recycling Technologies, Inc., unless otherwise noted. All rights reserved. June 2014.